REMARKS

Claims 1-20 were previously pending and new claims 21-28 have been added. Claims 1, 10, 14, 18 and 20 have been amended over the previous version. Support for the amendments may be found within the entirety of the specification, and particularly at pages 4-7.

Claims 1-13 have been previously deemed unpatentable pursuant to 35 U.S.C. § 103(a) as obvious over U.S. Patent 6,046,712 to <u>Beller</u> in view of U.S. Patent 6,522,312 to <u>Ohshima</u>. Claims 14-20 have been deemed anticipated by <u>Beller</u> pursuant to 35 U.S.C. § 102(b). Applicants respectfully request favorable consideration and earnestly solicit allowance of the application in light of the amendments and following remarks.

I.   Rejection Under 35 U.S.C. § 103(a)

Independent claim 1

Independent claim 1 is directed to a method for viewing data. The method of claim 1 includes the act of, *inter alia*, "<u>in response to automatically detecting one or more visual markers, selecting data from a database located on a memory storage</u>." The data has "<u>a predefined association with one of said objects associated with one of said visual markers</u>." The specification at page 4 describes a exemplary system that includes a computer network having a processor in communication with a database located on memory storage devices. Data and information stored in the databases include predefined information associated with the objects. The wearable system identifies one or more visual markers when the visual marker(s) is within a field of view of the wearable camera. A marker associated with and

proximate to the labeled object is detected and the predefined data associated with the labeled object is selected from the memory storage.

Applicant respectfully submits that the Beller and Ohshima combination does not recite or suggest the limitations of independent claim 1. First, Beller relates to a head-mounted communication system that provides interactive communications between a user of the head-mounted display and a human operator of a remote system. (Beller, Abstract; col. 1, ll. 58-62). Beller retrieves video data and audio information stored in buffer, and transmits that data and information to a remote system where a remote human operator manually adds marks to the transmitted video image. (Beller, col. 2, ll. 16-22; col. 9, ll. 24-35). The marked-up image is re-transmitted back to the head-mounted system, where it is presented to a user in the head-mounted display. (Beller, col. 2, ll. 39-51). The user realigns and maintains his head in a position where the picked up video image from the head-mounted camera matches the marked-up re-transmitted image. (Beller, col. 2, ll. 39-59; col. 8, ll. 38-67). Therefore, Beller manually generates a virtual marker on a video image and displays the manually marked-up image in a head-mounted display.

Next, Ohshima relates to a mixed reality system in which a magnetic sensor and CCD camera attached to a user's head provide a view point of the user. (Ohshima, Abstract). The CCD camera senses a marker to correct a signal of the magnetic sensor representing the head posture of the user. (Ohshima, col. 12, ll. 1-8; col. 13, ll. 41-53). The corrected signal provides for a correction calculation to display a virtual image at a correct view point for the

user. (Ohshima, col. 18, ll. 20-56). Therefore, Ohshima senses a marker to correct a virtual image displayed to the user.

Accordingly, the Beller and Ohshima combination senses a marker to provide a correction to a manually marked-up image presented to the user. In the Beller and Ohshima combination, the marker is sensed to correct the virtual image according to the posture of the user of a head mounted display. The combination of Beller and Ohshima does not disclose or suggest selecting data from a database located on a memory storage" in response to automatically detecting one or more visual markers as recited in independent claim 1.

Furthermore, amended claim 1 overcomes the present rejection because there is no disclosure or suggestion in the Beller and Ohshima combination data selected from a database having "a **predefined** association with one of said objects associated with one of said visual markers," as recited by claim 1. Accordingly, Applicant respectfully requests favorable consideration of claim 1.

Independent claim 10

Independent claim 10 is directed to a method for coordinating the movement of human workers in a working environment. The method includes the act of, *inter alia*, "in response to determining the unique identifier, obtaining the physical location of the marker maintained in a database located on a memory storage." The database stores "predefined associations of unique identifiers and locations of the visual markers."

As discussed, the specification describes exemplary systems including a computer network having a processor in communication with databases located on memory storage

devices. The databases store data and related to, *inter alia*, the work environment, object details, current status and location of workers. A unique identifier associated with a marker is determined based on detecting the marker in a visual image and the unique identifier is used to obtain the location of the worker based on a stored predefined associations stored in a database.

The Beller and Ohshima combination does not disclose or suggest "obtaining the physical location of the marker," in response to determining the unique identifier as recited by independent claim 10. To the contrary, Ohshima describes that a "landmark" markers may be used to calculate a correction to a sensed position, orientation or posture of the user's head to provide a virtual image to the user at a corrected view point . (Ohshima, col. 13, ll. 41-53; col. 14, ll. 5-24; col. 18, ll. 20-56). Therefore, the Beller and Ohshima combination senses markers to display a calibrated virtual image. The Beller and Ohshima combination does not disclose or suggest a database that stores data having predefined associations with objects labeled with a visual marker.

Moreover, the combination of Beller and Ohshima does not disclose or fairly suggest or that data are selected from the database. Rather the combination Beller and Ohshima disclose sensing a marker to correct the video image. Accordingly, Applicant respectfully requests favorable consideration of claim 10.

Dependent claims 2-9 and 11-13

For similar reasons, the combination of Beller and Ohshima also fails to disclose the limitations of claims 2-9 and 11-13. As discussed above, Beller and Ohshima does not

disclose or suggest the limitations for independent claims 1 and 10, and therefore, the <u>Beller</u>

and <u>Ohshima</u> combination also does not disclose the limitations for claims 2-9 and 11-13.

Accordingly, favorable consideration of claims 2-9 and 11-13 is respectfully requested.

I.   <u>Rejection Under 35 U.S.C. § 102(b)</u>

<u>Independent claim 14</u>

Independent claim 14 is directed to a system for viewing data. The system includes,

inter alia, a wearable computer system having logic that is capable of, *inter alia*, 1)

"detecting one or more visual markers within the field of view of the camera," 2)

"determining an identifier associated with the marker in response to detecting one or more

visual markers," 3) "wirelessly transmitting the identifier to a computer network," and 4)

wirelessly receiving <u>predefined</u> data associated with the identifier from the computer

network."

As discussed, applicant's specification describes exemplary systems including a

computer network having a processor in communication with databases that may store data

and information related to the work environment, object details, current status and location of

workers. Visual markers within the field of view of the operator and proximate to objects are

viewed by the wearable camera and detected by logic of the computer system. The logic also

determines an identifier associated with the marker in response to detecting the marker.

Therefore, the specification describes that a wearable computer system having logic, and not

a human operator or user, detects visual markers and determines identifiers associated with

those markers. The logic wirelessly transmits the identifier and wirelessly receives predefined data.

In contrast, the Beller reference discloses a system that works differently than required by the system of claim 14. In the Beller system, a remote human operator monitors the user's view through a video image that is remotely transmitted. The remote human operator adds marks to the video image, which is retransmitted back to the user of the head-mounted display. (col. 2, ll. 16-22). The user of the head-mounted display realigns and maintains his head at a position to coincide with the marked up image displayed in the head-mounted display. Therefore, in Beller, a human operator detects an object and marks up the image. The human user of the head-mounted display realigns or maintains his head position to coincide with the image marked up by the remote human operator. Accordingly, in Beller, human operators and users manually see and detect and identify objects in an image of that object.

Applicant submits that amended claim 14 overcomes the previous rejection for several reasons. First, Beller does not disclose logic for detecting the visual markers in the manner recited by claim 14. In particular, nowhere in Beller is there disclosed logic on a wearable computer for determining an identifier associated with the marker "in response to detecting one or more visual markers." The rejection is premised on this step being performed by an operator aligning an image of a real-world object with a virtual marker displayed on the image. This is clearly different from claim 14.

Second, Beller does not disclose "predefined data associated with the identifier."

Indeed, in Beller, any information associated with any identifier is not predefined before the

visual marker is detected because any association is created by the remote operator.

Accordingly, Applicant respectfully requests favorable consideration of the claim 14.

Dependent claims 15-20

For similar reasons, Beller also fails to disclose the limitations of claims 15-20, which

depend from claim 14. Claim 20 has been amended to correct antecedence. Accordingly,

favorable consideration of claims 15-20 is also respectfully requested.

New claims 21-28

New claims 21-28 are added. Support for these claims is found at least at pages 2, 3

and 7. New claims further distinguish Beller and Ohshima because neither reference

discloses visual markers having a physical real-world machine-recognizable pattern, or

library of visual markers having a physical real-world machine-recognizable pattern, or a

database storing employee preference and profile. Accordingly, favorable consideration of

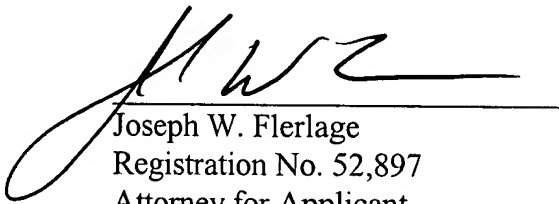claims 21-25 is also respectfully requested.

CONCLUSION

In view of the foregoing amendments and reasons, Applicant respectfully requests favorable consideration and earnestly solicits allowance of all pending claims. If the examiner believes that a telephone conference would expedite allowance of the application, the examiner is invited to call the undersigned.

Respectfully submitted,

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